Simultaneous Linear Equations Difficulty: Hard

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Algebra and graphs
Sub-Topic	Simultaneous Linear Equations
Paper	Paper 2
Difficulty	Hard
Booklet	Question Paper 1

Time allowed: **48 minutes**

Score: **/37**

Percentage: **/100**

Grade Boundaries:

CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%

Question 1

Solve the simultaneous equations.
You must show all your working.

$$y = \frac{x}{2}$$
$$2x - y = 1$$

[3]

Question 2

Solve the simultaneous equations.
You must show all your working. [3]

$$\frac{1}{2}x + y = 8$$
$$x - 2y = 2$$

Question 3

Solve the simultaneous equations.
Show all your working.

$$3x + 4y = 14$$
$$5x + 2y = 21$$

[3]

Question 4

Solve the simultaneous equations.
You must show all your working.

[4]

$$5x + 2y = -2$$
$$3x - 5y = 17.4$$

Question 5

Solve the simultaneous equations.

$$0.4x - 5y = 27$$
$$2x + 0.2y = 9$$

[3]

Question 6

Robbie pays $10.80 when he buys 3 notebooks and 4 pencils.

Paniz pays $14.50 when she buys 5 notebooks and 2 pencils.

Write down simultaneous equations and use them to find the cost of a notebook and the cost of a pencil.

[5]

Question 7

Find the value of $2x + y$ for the simultaneous equations.

$$3x + 5y = 48$$
$$2x - y = 19$$

[4]

Question 8

Solve the simultaneous equations.

$$\frac{2x + y}{2} = 7$$

$$\frac{2x - y}{2} = 17$$

[3]

Question 9

Find the co-ordinates of the point of intersection of the straight lines

$$2x + 3y = 11,$$
$$3x - 5y = -12.$$

[3]

Question 10

Solve the simultaneous equations

$$0.4x + 2y = 10,$$
$$0.3x + 5y = 18.$$

[3]

Question 11

Solve the simultaneous equations

$$\frac{1}{2}x + y = 5,$$

$$x - 2y = 6.$$

[3]